

UNITED STATES DEPARTMENT OF COMMERCE

W. AVERELL HARRIMAN, Secretary

NATIONAL BUREAU OF STANDARDS

E. U. CONDON, Director

INSECT WIRE SCREENING

COMMERCIAL STANDARD CS138-47

Effective Date for New Production From January 2, 1947



A RECORDED VOLUNTARY STANDARD
OF THE TRADE

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1947

P R O M U L G A T I O N
of
COMMERCIAL STANDARD CS138-47
for
INSECT WIRE SCREENING

On February 23, 1945, at the instance of the Insect Wire Screening Bureau, a meeting of producers of insect wire screening adopted the proposed commercial standard for this commodity. This was submitted on March 28, to leading manufacturers, interested Government agencies, distributor and user organizations for constructive comment. Following adjustment in the light of the comment received, the recommended commercial standard was circulated for written acceptance on July 16, 1945.

Those concerned have since accepted and approved the standard as shown herein for promulgation by the United States Department of Commerce, through the National Bureau of Standards.

The standard is effective for new production from January 2, 1947.

Promulgation recommended.

F. W. Reynolds,
Acting Chief, Division of Trade Standards.

Promulgated.

E. U. Condon,
Director, National Bureau of Standards.

Promulgation approved.

W. Averell Harriman,
Secretary of Commerce.

Project Manager: E. C. Barrett, Division of Trade Standards.

Technical Adviser: Dr. L. V. Judson, Metrology Division.

INSECT WIRE SCREENING

COMMERCIAL STANDARD CS138-47

PURPOSE

1. The purpose of this commercial standard is to provide a nationally recognized standard of quality of insect wire screening. It will assist ultimate consumers in determining what sizes and types of insect wire screening are standard with the industry; and to promote fair marketing practices and a better understanding between manufacturers, distributors, and consumers of insect wire screening.

SCOPE

2. This standard describes the nomenclature, definitions and general requirements for commercial standard insect wire screening designed and woven primarily for installation in or on, any dwelling, building, or structure, for the purpose of preventing the ingress of flies, mosquitoes, or other insects. A recommended form for guaranteeing compliance with this standard is included.

DEFINITIONS

3. *Insect wire screening*.— 16×16 , 18×14 , and 18×18 mesh woven wire screening (carbon steel, commercial bronze, and copper), for protection against mosquitoes as well as flies and larger insects. (See par. 9.)

4. *Galvanized steel wire screening*.— 16×16 , 18×14 , and 18×18 mesh carbon steel insect wire screening for protection against mosquitoes as well as flies and larger insects. (See par 9.) The metal used for the coating shall be zinc of at least 98 percent purity.

5. *Bronze screening*.— 16×16 , 18×14 , and 18×18 mesh "commercial bronze" insect wire screening for protection against mosquitoes as well as flies and larger insects; woven from wire containing 89 to 91 percent of copper and the remainder zinc; lead or iron occurring as impurities shall not exceed 0.05 percent each. (See par. 9.)

6. *Copper screening*.— 16×16 , 18×14 , and 18×18 mesh copper insect wire screening for protection against mosquitoes as well as flies and larger insects; woven from wire containing at least 99.8 percent of copper. (See par. 9.)

7. *Mesh*.—Mesh is the width of one opening plus the thickness of one wire; alternatively considered as being the distance from the center of one wire to the center of the next adjacent wire. The technical designation of the mesh count of insect wire screening is the number of meshes per linear inch, counted in the direction of both the warp and

the filler wires. When used as a common designation of the "mesh size" of insect wire screening, the word "mesh" is generically accepted as meaning the number of open spaces per linear inch in both warp and filler directions.

MATERIAL AND WORKMANSHIP

8. All standard wire screening shall be made of high-grade materials and with good workmanship. It shall be free from any defects that might affect its serviceability or its appearance. Well-made splices not over three-fourths of an inch long and showing no tails are permissible at any point of any individual wire, provided, however, that the number of splices shall not exceed 30 in any stock roll nor two splices in any 1 square foot of finished screening.

GENERAL SPECIFICATIONS

9. The mesh counts, sizes and kinds of wire, and types or character of finishes for standard insect wire screening shall be as shown in table 1.

TABLE 1.—*Insect wire screening*

Metal	Mesh			Diameter of wire	Finish
Steel.....	16 X 16	18 X 14	18 X 18	<i>Inches</i> 0.011	Galvanized.
Commercial bronze.....	16 X 16	18 X 14	18 X 18	.011	Bright or antique (dark).
Copper.....	16 X 16	18 X 14	18 X 18	.011 Do.	

WIDTHS

10. The stock widths of all types of standard insect wire screening shall be 24, 26, 28, 30, 32, 36, 42, 48 inches.

ROLL LENGTH

11. All standard stock rolls of insect wire screening shall be 100 linear feet in length; shall contain not more than two pieces per roll, and no piece shall be less than 10 linear feet in length.

MESH COUNT

12. Accuracy of mesh count in the direction of the warp or filler wires shall be determined by counting the mesh openings for any interval of one continuous linear foot and dividing the result by 12.

WIRE DIAMETER

13. Accuracy of the wire diameter of steel insect wire screening shall be determined by computing the average of the measured diameter of not less than 10 warp wires together with the same number of filler wires, taken at random from the finished screening, but with all coating or surface finish (if any) entirely removed.

13a. In commercial bronze and copper insect wire screening the same diameter of wire shall be used for both the warp and the filler, and accuracy of the wire diameter shall be determined by computing

separately the average measured diameter of not less than 10 warp wires and of the same number of filler wires taken at random from the finished screening.

13b. For standard galvanized insect wire screening a size of wire may be used for the warp that is different from that (size) employed for the filler; such variations in size, however, shall not be excessive, and in all cases the average diameter of warp and filler wires for galvanized steel insect wire screening shall be 0.011 inch. For all standard commercial bronze and copper insect wire screening, the same wire diameter (0.011 inch) shall be used for both the warp and the filler.

SELVAGES

14. *Selvage.*—There shall be one (1) or more wires in both selvage edges of all standard insect wire screening.

TOLENCES

15. Permissible variations shall be:

- (a) For wire diameters: 0.0005-inch, plus or minus.
- (b) For mesh count:
 - Warp, one-quarter mesh per linear inch, plus or minus.
 - Filler, one-half mesh per linear inch, plus or minus.
- (c) For width: plus or minus $\frac{1}{8}$ inch.
- (d) For length: minus 2 inches.

PACKAGING

16. Unless otherwise specified, standard insect wire screening shall be enclosed in such standard commercial containers, or wrapping, as will insure acceptance by common or other carriers for safe transportation to the ultimate point of delivery, at the lowest applicable rate.

LABELING

17. The mesh count, size, kind and finish of wire, the length and width of the screening enclosed, shall be shown in a conspicuous place, preferably by means of a printed label, on the outside wrapping or covering of each roll of standard insect wire screening.

GUARANTEE

18. In order to assure the purchaser that he is receiving insect wire screening that complies with the requirements of this standard, it is recommended that the label on each roll carry the following guarantee:

We hereby guarantee that this insect wire screening complies with all requirements of Commercial Standard CS138-47, as issued by the National Bureau of Standards of the United States Department of Commerce.

(Signed)

EFFECTIVE DATE

19. The standard is effective for new production from January 2, 1947.

STANDING COMMITTEE

20. The following individuals comprise the membership of the standing committee, as appointed by the National Bureau of Standards. This committee is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Each organization nominated its own representative. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee.

Manufacturers:

L. B. JACKSON, (chairman), Wickwire Brothers, Inc., Cortland, N. Y.
STUART M. JONES, New York Wire Cloth Co., 500 Fifth Avenue, New York 18, N. Y.
PERCY JENKINS, Hardware Products Department, Wickwire Spencer Steel Co., 500 Fifth Avenue, New York 18, N. Y.
JOHN D. STODDER, Cyclone Fence Division, American Steel & Wire Co., Waukegan, Ill.
RALPH W. BACON, Insect Wire Screening Bureau, 74 Trinity Place, New York 6, N. Y.

Distributors:

WALDO J. TASTET, Fries, Beall & Sharp Co., Inc., 734 Tenth Street NW., Washington 1, D. C. (Representing The National Wholesale Hardware Association.)
RIVERS PETERSON, National Retail Hardware Association, 333 North Pennsylvania Street, Indianapolis 4, Ind.
T. W. McALLISTER, Secretary, Southern Hardware Jobbers Association, 814 Metcalf Bldg., Orlando, Fla.

Consumers and General Interests:

L. V. JUDSON, National Bureau of Standards, Washington 25, D. C.
G. IRVING BAILY, American Retail Federation, 1627 K Street NW., Washington, 6, D. C.
E. W. DONAHUE, Wabash Screen Door Co., 310 S. Michigan Ave., Chicago 4, Ill. (Representing National Door Manufacturers Assn., Inc.)
C. C. KIKER, Tennessee Valley Authority, Wilson Dam, Ala. (Representing The American Public Health Assn.)

HISTORY OF PROJECT

21. On September 26, 1944, the Insect Wire Screen Cloth Bureau requested the cooperation of the National Bureau of Standards in the establishment of a commercial standard for insect wire screening. A preliminary draft of the proposed commercial standard was submitted to manufacturers for their review and comment. All comment was carefully considered at a meeting held in New York City on February 23, 1945. An adjusted draft was then prepared and submitted on March 28, 1945, to technical organizations, Government agencies, testing laboratories, manufacturers, and wholesale, retail, and user organizations for further review and comment. The standard was then modified in accordance with composite recommendations of those concerned and circulated on July 16, 1945, to the trade for written acceptance.

22. Upon receipt of official acceptances estimated to represent a satisfactory majority of the production by volume, and in the absence of active valid opposition, the standard was promulgated on December 2, 1946, as Commercial Standard CS138-47.

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date _____

Division of Trade Standards,
National Bureau of Standards,
Washington 25, D. C.

Gentlemen:

We believe that the Commercial Standard CS138-47 constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

production ¹ distribution ¹ purchase ¹ testing ¹
of insect wire screening.

We reserve the right to depart from it as we deem advisable.

We understand, of course, that only those articles which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer _____
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer _____

Organization _____
(Fill in exactly as it should be listed)

Street address _____

City, zone, and State _____

¹ Underscore which one. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade associations, trade papers, etc., desiring to record their general support, the words "General Support" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs; and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish for specific commodities, nationally recognized grades or consumer criteria and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

23. The organizations listed below have individually accepted these grading rules for use as far as practicable in the production, distribution, testing, or purchase of insect wire screening. In accepting the standard they reserved the right to depart therefrom as they individually deem advisable. It is expected that articles that actually comply with the requirements of this standard in all respects will be regularly identified or labeled as conforming thereto, and that purchasers will require such specific evidence of conformity.

ASSOCIATIONS

(General Support)

Alabama, Retail Hardware Association of, Birmingham, Ala.
 American Hot Dip Galvanizers Association, Pittsburgh, Pa.
 American Society of Bakery Engineers, Chicago, Ill.
 Boy Scouts of America, National Council, New York, N. Y.
 California Retail Hardware Association, Inc., San Francisco, Calif.
 Insect Wire Screening Bureau, New York, N. Y.
 Intermountain Consumer's Service, Inc., Denver, Colo.
 National Committee for Farm Production Supplies, Washington, D. C.
 National Retail Hardware Association, Indianapolis, Ind.
 National Wholesale Hardware Association, The, Philadelphia, Pa.
 Oklahoma Hardware & Implement Association, Oklahoma City, Okla.
 Z. C. M. I., Wholesale Hardware Division, Salt Lake City, Utah.

FIRMS

Agnew Hardware Co., Everett, Wash.
 Alabama, State of, Montgomery, Ala.
 Albany Hardware Co., Albany, Ga.
 Albany Hardware & Iron Co., Albany, N. Y.
 Allen Co., Inc., Walter H., Dallas, Tex.
 Allen & Jemison Co., Tuscaloosa, Ala.
 American Grille & Screen Works, Dallas, Tex.
 American Hardware Supply Co., Pittsburgh, Pa.
 American Sash & Door Co., Kansas City, Mo.
 American Wholesale Hardware Co., Long Beach, Calif.
 American Wire Fabrics Corp. (Subsidiary of Colorado Fuel & Iron Corp.), New York, N. Y.
 Anderson & Ireland Co., The, Baltimore, Md.
 Anniston Hardware Co., Anniston, Ala.
 Arizona Hardware Co., Phoenix, Ariz.
 Armstrong & Sons, C. E., Clinton, Iowa.
 Athens Hardware Co., The, Athens, Ga.
 Aubuchon Co., Inc., W. E., Fitchburg, Mass.
 Austin Bros., Stockton, Calif.
 Badger Paint & Hardware Stores, Inc., Milwaukee, Wis.
 Baer Easy-Clean Window Co., Youngstown, Ohio.
 Baird Hardware Co., Gainesville, Fla.
 Bard Hardware Co., Reading, Pa.
 Barker-Jennings Hardware Corp., Lynchburg, Va.
 Barker, Rose & Kimball, Inc., Elmira, N. Y.
 Barnes Lumber Co., W. F. & J. F., Wholesale Department, Waco, Tex.
 Barr Lumber Co., Santa Ana, Calif.
 Barrett Hardware Co., Joliet, Ill.
 Baughman Lumber Co., The, Ponca City, Okla.

Bay Cities Wholesale Hardware Co., San Francisco, Calif.
 Bay City Hardware Co., Bay City, Mich.
 Bayonne Steel Products Co., Newark, N. J., and Paterson, N. J.
 Beals, McCarthy & Rogers, Inc., Buffalo, N. Y.
 Beatty Lumber Co., I. N. R., Morris, Ill.
 Bentley Hardware Co., The, Great Bend, Kans.
 Bering-Cortes Hardware Co., Houston, Tex.
 Bigelow & Dowse Co., Boston, Mass.
 Biggs, Kurtz Hardware Co., The, Grand Junction, Colo.
 Billings Hardware Co., Billings, Mont.
 Birmingham, City of, Birmingham, Ala.
 Black Hardware Co., Galveston, Tex.
 Blish, Mize & Silliman Hardware Co., Atchison, Kans.
 Bloch Hardware Co., New York, N. Y.
 Bluefield Hardware Co., Bluefield, W. Va.
 Blumberg Co., Inc., William L., New York, N. Y.
 Boggs & Buhl, N. S., Pittsburgh, Pa.
 Boston Supply Co., Inc., Boston, Mass. (General support.)
 Bostwick-Braun Co., The, Toledo, Ohio.
 Bridge Hardware Co., Inc., New York, N. Y.
 Brockway-Smith-Haigh-Lovell Co., Boston, Mass.
 Bronson & Townsend Co., The, New Haven, Conn.
 Brown-Camp Hardware Co., Des Moines, Iowa.
 Brown Co., Inc., A. B., Woodside, N. Y.
 Brown Lynch Scott Co., Inc., Monmouth, Ill.
 Budge Co., Frank T., Miami, Fla.
 Buell Lumber & Manufacturing Co., Dallas, Tex.
 Buffalo, City of, Department of Public Works, Architectural Service, Buffalo, N. Y.
 Buhl Sons Co., Detroit, Mich.
 Buhrman-Pharr Hardware Co., Texarkana, Ark.
 Builders Supply Co., San Antonio, Tex.
 Bunting Hardware Co., Kansas City, Mo.
 Burdick-Baron Co., Dallas, Tex.
 Burhans & Black, Inc., Syracuse, N. Y.
 California Hardware Co., Los Angeles, Calif.
 California Wire Cloth Corp., The, Oakland, Calif.
 Cameron & Co., Inc., Wm. (wholesale), Waco, Tex.
 Cameron Lumber Co., Inc., Newburgh, N. Y.
 Canton Hardware Co., The, Canton, Ohio.
 Carlisle Hardware Co., Springfield, Mass.
 Carpenter Hardware Co., The, Athens, Ohio; Gloucester, Ohio; Logan, Ohio; and Nelsonville, Ohio.
 Ceco Steel Products Corp., Cicero, Ill.
 Centre Hardware Co., Roslindale, Mass.
 Century Lumber Co., Des Moines, Iowa.
 Charleston Hardware Co., Charleston, W. Va.
 Charlottesville Hardware Co., Inc., Charlottesville, Va.
 Chase Brass & Copper Co., Inc., Waterbury, Conn.
 Chicago & Riverdale Lumber Co., Chicago, Ill.
 Cincinnati Fly Screen Co., Cincinnati, Ohio.
 Clark Witbeck Co., Schenectady, N. Y.
 Clendenin Brothers, Inc., Baltimore, Md.
 Cloverdale Hardware & Lumber Co., Cloverdale, Ind.

Cole & Sons, Wm. H., Baltimore, Md.
 Colladay Hardware Co., Hutchinson, Kans.
 Collins & Son, Inc., J. S., Moorestown, N. J.
 Columbia Valley Lumber Co., Bellingham, Wash.
 Combs Lumber Co., Inc., Lexington, Ky.
 Conde Hardware Co., W. W., Watertown, N. Y.
 Conn Hardware & Furniture Co., Stuttgart, Ark.
 Coolbaugh & Son Co., C. C. (Division of Aetna Industrial Corp.), Gloucester City, N. J.
 Copperweld Steel Co., Glassport, Pa. (General support.)
 Corpus Christi Hardware Co., Corpus Christi, Tex.
 Cosgrove, Inc., E., Silver City, N. Mex.
 Cresmer Manufacturing Co., Riverside, Calif.
 Curtis Co's., Inc., Clinton, Iowa, and Wausau, Wis.
 Cutler Hardware Co., Waterloo, Iowa.
 Cyclone Fence Division (American Steel & Wire Co.), Waukegan, Ill.
 Davidson Sash & Door Co., Inc., Lake Charles, La.
 Deats Sash & Door Co., Los Angeles, Calif.
 Delaware Hardware Co., Wilmington, Del.
 Delta Hardware Co., Escanaba, Mich.
 Delta Hardware & Implement Co., Clarksdale, Miss.
 Devitt, Paul J., Philadelphia, Pa.
 Diamond Match Co., The, Chico, Calif.
 Disbrow & Co., Omaha, Nebr.
 Dreisbach's Sons, Inc., C., Lewisburg, Pa.
 Duer & Sons, Inc., John, Baltimore, Md.
 Dunlap & Co., Inc., Columbus, Ind.
 Du Quoin Home Lumber Co., Du Quoin, Ill.
 Dutton-Lainson Co., Hastings, Nebr.
 Dyke Bros, Fort Smith, Ark.
 Edwards & Walker Co., Portland, Maine.
 Emery Hardware Co., Bradford, Pa.
 Emery-Waterhouse Co., The, Portland, Maine.
 Emmons Hawkins Hardware Co., Huntington, W. Va.
 Epstein Co., N. B., Scranton, Pa.
 Erb Hardware Co., Lewiston, Idaho.
 Exchange Lumber & Manufacturing Co., Spokane, Wash.
 Farley & Loetscher Manufacturing Co., Dubuque, Iowa.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Federal Hardware Co., Inc., New York, N. Y.
 Federal Screen & Weatherstrip Manufacturing Co., The, Cleveland, Ohio.
 Flagg Co., Inc., George A., Worcester, Mass.
 Florida, University of, School of Forestry, Gainesville, Fla.
 Forum-James Lumber Co., Dyersburg, Tenn.
 Foster Co., F. G., Hoquiam, Wash.
 Foster Thornburg Hardware Co., Huntington, W. Va.
 Franke & Co., Inc., C. D., Charleston, S. C.
 Frankfurth Hardware Co., Milwaukee, Wis.
 Franklin Hardware & Supply Co., Philadelphia, Pa.
 Frederick Trading Co., The, Frederick, Md.
 Fries, Beall & Sharp Co., Washington, D. C.
 Fuller & Co., W. P., Boise, Idaho, and Portland, Oreg.
 Fulton, Mehring & Hauser Co., Inc., York, Pa.
 Gadsden Hardware Co., Gadsden, Ala.
 Galbraith Steel & Supply Co., Dallas, Tex.
 Gamble Stores, Inc., Minneapolis, Minn.
 Gannaway & Co., Inc., John E., Lynchburg, Va.
 Garfield Screen Co., Inc., Jersey City, N. J.
 Garnich & Sons Hardware Co., E., Ashland, Wis.
 Gates Hardware & Supply Co., Tulsa, Okla.
 Gelfond Screen & Weatherstrip Co., Newark, N. J.
 General Hardware & Supply Co., Inc., Philipsburg, Pa.
 General Millwork Corp., Utica, N. Y.
 Gibson Door Co., The, Utica, N. Y.
 Gilbert & Bennett Manufacturing Co., The, Georgetown, Conn.
 Glendale Sash & Millwork Corp., Brooklyn, N. Y.
 Goldberg Brothers, Denver, Colo.
 Goldenblum & Co., William, New York, N. Y.
 Goshen Sash & Door Co., Goshen, Ind.
 Gosport Hardware & Lumber Co., Gosport, Ind.
 Graves-Humphreys Hardware Co., Roanoke, Va.
 Hall Hardware Co., Minneapolis, Minn.
 Halstead Lumber Co., J. D., Phoenix, Ariz.
 Hanover Wire Cloth Co., Hanover, Pa.
 Harbor Sales Co., Inc., Baltimore, Md.

Harcos Hardware Co., Cleveland, Ohio.
 Harper & McIntire Co., Ottumwa, Iowa.
 Harper & Reynolds Corp., Los Angeles, Calif.
 Harris-Luckett Hardware Co., San Angelo, Tex.
 Hartford Wire Works Co., The, Hartford, Conn.
 Hartley & Son Co., J. M., Fairmont, W. Va.
 Hartung Co., F. L., Seattle, Wash.
 Hasson-Bryan Hardware Co., Morristown, Tenn.
 Hastings & Co., Inc., A. W., Somerville, Mass.
 Hauser Lumber Co., Fairfax, Minn.; Gibbon, Minn.; and Sleepy Eye, Minn.
 Haverhill Hardware & Plumbing Supply Co., Haverhill, Mass.
 Hawkinson Manufacturing Co., Galesburg, Ill.
 Hayes Sammons Hardware Co., Mission, Tex.
 Haynes & Chalmers Co., The, Bangor, Maine.
 Hayward Lumber & Inv. Co., Los Angeles, Calif.
 Heberlein, Inc., L. H., Brooklyn, N. Y.
 Heiling Brothers Co., York, Pa.
 Heitmann Co., F. W., Houston, Tex.
 Henderson & Baird Hardware Co., Greenwood, Miss.
 Henkle & Joyce Hardware Co., Lincoln, Nebr.
 Herr & Co., Inc., Lancaster, Pa.
 Herzog Supply Co., Kingston, N. Y.
 Higginsbotham-Pearlstone Hardware Co., Dallas, Tex.
 Hillsdale Screen Co., Hillsdale, Mich.
 Hogan Lumber Co., Oakland, Calif.
 Holmes Hardware Co., Pueblo, Colo.
 Holter Hardware Co., A. M., Helena, Mont.
 Hope's Windows, Inc., Jamestown, N. Y.
 Hopkins & Co., New York, N. Y.
 House-Hasson Hardware Co., Knoxville, Tenn.
 Huey & Philip Hardware Co., Dallas, Tex.
 Hulfish & Sons, Inc., Worth, Alexandria, Va.
 Hunt & Mottet Co., Tacoma, Wash.
 Huttig Manufacturing Co., Muscatine, Iowa.
 Huttig Sash & Door Co., St. Louis, Mo.
 I. & J. Hardware Co., Painesville, Ohio.
 Igoe Bros., Inc. (New Jersey Division), Newark, N. J.
 Ilfeld Co., Charles, Las Vegas, N. Mex.
 Iliff Lumber Co., Iliff, Colo.
 Industrial Wire Cloth Co., New York, N. Y.
 Interstate Hardware Co., Inc., Bristol, Tenn.
 Interstate Sash & Door Co., Canton, Ohio.
 Iron City Sash & Door Co., Pittsburgh, Pa.
 Jackson Hardware Co., The, Aberdeen, S. Dak.
 Jacksonville Sash & Door Co., Jacksonville, Fla.
 Janney Semple Hill & Co., Minneapolis, Minn.
 Jellico Hardware Co., Jellico, Tenn.
 Jellif Manufacturing Corp., The C. O., Southport, Conn.
 Jennings & Co., S. Barry, New Haven, Conn.
 Jennison Hardware Co., The, Bay City, Mich.
 Jersey Millwork Corp., Jersey City, N. J.
 Johnson & Co., Langdale, Ala.
 Johnson Metal Products Co., Erie, Pa.
 Jones Wire & Iron Works, Inc., L. E., Baltimore, Md.
 Kamin Co., The A., Chicago, Ill.
 Kaminski Hardware Co., Georgetown, S. C.
 Kane Manufacturing Corp., Kane, Pa.
 Keego Hardware Co., Pontiac, Mich.
 Keith, Simmons Co., Inc., Nashville, Tenn.
 Kemp Lumber Co., Roswell, N. Mex.
 Kendall Hardware—Mill Supply Co., Battle Creek, Mich.
 Kentucky Metal Products Co., Louisville, Ky.
 Keystone Wire Cloth Co., Hanover, Pa.
 Kimball & Wilson, Inc., Detroit, Mich.
 King Hardware Co., Atlanta, Ga.
 King Lumber Co., The, Bakersfield, Calif.
 Kleinhardt Hardware Co., New York, N. Y.
 Knapp & Spencer Co., Sioux City, Iowa.
 Knight & Wall Co., Tampa, Fla.
 Koehl & Son, Inc., John W., Los Angeles, Calif.
 Korb-Pettit Wire Fabrics & Iron Works, Inc., Philadelphia, Pa.
 Korber & Co., J., Albuquerque, N. Mex.
 Krebs & Co., Arthur H., Springfield, Ill.
 Kresge—Newark, Newark, N. J.
 Kretschmer—Tredway Co., Dubuque, Iowa.
 Lake Erie Hardware Co., The, Cleveland, Ohio.
 Lamper, Harry, Lowell, Mass.
 Langsam Hardware Co., New York, N. Y.
 Lato Products Co., Texarkana, Tex.

Lawrence Lumber Co., Inc., The, Wichita, Kans.
 LeDelt Glass Co., San Jose, Calif.
 Lee Hardware Co., Ltd., The, Shreveport, La.
 Lit Brothers, Philadelphia, Pa.
 Loeb Hardware Co., Montgomery, Ala.
 Loetscher & Burch Manufacturing Co., Des Moines, Iowa.
 Logan-Gregg Hardware Co., Pittsburgh, Pa.
 Long-Bell Lumber Co., The, Weed, Calif.
 Lorenz Co., Klamath Falls, Oreg.
 Loring Lane Co., New York, N. Y.
 Loucks Hardware Co., The, Scottsdale, Pa.
 Louisville Tin & Stove Co., Louisville, Ky.
 Lumbermens Supply Co., Oklahoma City, Okla.
 Luthe Hardware Co., Des Moines, Iowa.
 Macy's Bureau of Standards, New York, N. Y.
 Madison Hardware Co., Madison, Wis.
 Mahoney Sash & Door Co., The, Canton, Ohio.
 Marine Manufacturing & Supply Co., New Brunswick, N. J.
 Marion Hardware Co., Ocala, Fla.
 Marion Hardware & Supply Co., Inc., Marion, Va.
 Marshall Co., Inc., A. H., Plattsburgh, N. Y.
 Marshall Wells Co., Duluth, Minn.; Portland, Oreg.; and Spokane, Wash.
 Martin Hardsoeg Co., The, Pittsburgh, Pa.
 Martin Lumber Co., Springfield, Mass.
 Masback, Inc., New York, N. Y.
 Mason City Millwork Co., Mason City, Iowa.
 Mathews & Boucher, Rochester, N. Y.
 Maxwell Wholesale Hardware Co., Oakland, Calif.
 May Hardware Co., Washington, D. C.
 McClung & Co., Inc., C. M., Knoxville, Tenn.
 McGowin-Lyons Hardware & Supply Co., Mobile, Ala.
 McGregor Hardware Co., Springfield, Mo.
 McKee, R. D., Hagerstown, Md.
 McPhillips Manufacturing Co., Mobile, Ala.
 Meier & Frank Co., Inc., Portland, Oreg.
 Memphis Sash & Door Co., Memphis, Tenn.
 Mesker Bros. Iron Co., St. Louis, Mo.
 Metalcraft Screen Co., Boston, Mass.
 Metropolitan Millwork Co., Brooklyn, N. Y.
 Michigan Merchandising Co., Detroit, Mich.
 Michigan State Purchasing Division, Lansing, Mich.
 Midstate Hardware Co., Bend, Oreg.
 Miller Bros. Hardware Co., Richmond, Ind.
 Miller Screen Co., The, Paterson, N. J.
 Minnesota Department of Highways, St. Paul, Minn.
 Minot Builders Supply Co., Minot, N. Dak.
 Mitchell-Powers Hardware Co., Inc., Bristol, Va.
 Monroe Hardware Co., Inc., Monroe, La.
 Monroe Hardware Co., Monroe, N. C.
 Montana Hardware Co., Butte, Mont.
 Montana Lumber & Hardware Co., Lewistown, Mont.
 Montgomery & Crawford, Inc., Spartanburg, S. C.
 Montgomery Ward & Co., Chicago, Ill.
 Moore & Co., Dallas, Tex.
 Morehouse & Wells Co., Decatur, Ill.
 Morgan Sash & Door Co., Oklahoma City, Okla.
 Morley Brothers, Saginaw, Mich.
 Morley-Murphy Co., Green Bay, Wis.
 Morrison-Merrill & Co., Salt Lake City, Utah.
 Morrow-Thomas Hardware Co., Amarillo, Tex.
 Morse Hardware Co., Bellingham, Wash.
 Murray-Brooks Hardware Co., Ltd., Lake Charles, La.
 Nash Hardware Co., Fort Worth, Tex.
 Nash, Robinson & Co., Waco, Tex.
 National Sash & Door Co., New Orleans, La.
 Neal-Blum Co., Savannah, Ga.
 Neil Millwork & Supply Co., Oklahoma City, Okla.
 Neil Co., Thos. G., Paterson, N. J.
 New Hampshire Hardware & Plumbing Supply Co., Manchester, N. H.
 New York Wire Cloth Co., New York, N. Y.
 Newark Wire Cloth Co., Newark, N. J.
 Newton Co., F. H., Somerville, Mass.
 Niagara Hardware & Plumbing Supply, Corp.
 Niagara Falls, N. Y. (General support).
 Nickerson Lumber Co., Orleans, Mass.
 Nicolai Door Sales Co., San Francisco, Calif.
 Northern Commercial Co., Seattle, Wash.
 Northern Hardware & Supply Co., Menominee, Mich.
 Northern Wholesale Hardware Co., Portland, Oreg.
 Norton Hardware Co., Norton, Va.
 Odell Hardware Co., Greensboro, N. C.
 O'Hara Hardware, Ottumwa, Iowa.
 Ohio Valley Hardware & Roofing Co., Evansville, Ind.
 Oklahoma City Hardware Co., Oklahoma City, Okla.
 O'Neill Co., The M., Akron, Ohio.
 O'Neill McNamara Hardware Co., Vicksburg, Miss.
 Oregon City Lumber Co., Oregon City, Oreg.
 Ornamental Iron Works Co., The, Akron, Ohio.
 Pacific Manufacturing Co., Santa Clara, Calif.
 Pacific Mutual Door Co., Chicago, Ill.
 Pacific Wire Products Corp., Compton, Calif.
 Pacific Wire Works Co., Seattle, Wash.
 Page, Steele & Flagg Co., The, New Haven, Conn.
 Patten-Blinn Lumber Co., Los Angeles, Calif.
 Paxton & Gallagher Co., Omaha, Nebr.
 Pearlstine & Sons, I. M., Charleston, S. C.
 Peck Co., Geo. W., Bath, N. Y.; and Elmira, N. Y.
 Peck Hardware Co., The, Canandaigua, N. Y.
 Peeler Hardware Co., Macon, Ga.
 Peirson Hardware Co., Pittsfield, Mass.
 Penn Traffic Co., Johnstown, Pa.
 Pennsylvania Woven Wire Co., Lock Haven, Pa.
 Pensacola Hardware Co., Pensacola, Fla.
 Peoples Hardware Co., Washington, D. C.
 Persinger Supply Co., Williamson, W. Va.
 Peterson Lumber & Paint Co., El Paso, Tex.
 Phenix Manufacturing Co., Inc., Milwaukee, Wis.
 Philadelphia Screen Manufacturing Co., Philadelphia, Pa.
 Phillips & Co., I. W., Tampa, Fla.
 Phillips Hardware Co., The, Cambridge, Md.
 Phoenix Hardware Co., Newark, N. J.
 Phoenix Wire Works, Inc., Detroit, Mich.
 Pierce Hardware Co., Inc., The, Taunton, Mass.
 Pinckneyville Home Lumber Co., Pinckneyville, Ill.
 Pittsburgh Mercantile Co., Pittsburgh, Pa.
 Pittsfield Hardware & Plumbing Supply Co., Pittsfield, Mass.
 Porter-Hadley Co., Grand Rapids, Mich.
 Porter Hardware Co., E. R., Dothan, Ala.
 Portsmouth Lumber Corp., Portsmouth, Va.
 Prineville Hardware Co., Prineville, Oreg.
 Prutzman Co., Inc., The H. C., Altoona, Pa.
 Purkey & Son, J. W., Berea, Ky.
 Queensborough Lumber Co., Inc., Bayside, N. Y.
 Quigley Co., J. R., Gloucester City, N. J.
 Ramsey & Sons, Inc., A. H., Miami, Fla.
 Raton Builders Supply, Raton, N. Mex.
 Ravenna Hardware Co., Ravenna, Ohio.
 Rehm Hardware Co., Chicago, Ill.
 Reilly Bros. & Raub, Inc., Lancaster, Pa.
 Reliable Hardware Store, New York, N. Y.
 Reynolds Wire Co., Dixon, Ill.
 Rice & Miller Co., Bangor, Maine.
 Richards & Conover Hardware Co., Kansas City, Mo.
 Richards & Davis Co., Fall River, Mass.
 Richardson Co., W. H., Austin, Tex.
 Richmond Hardware Co., Richmond, Va.
 Rieger Iron & Wire Works, Inc., Pittsburgh, Pa.
 Rike-Kumler Co., The, Dayton, Ohio.
 Rinn Scott Lumber Co., Chicago, Ill.
 Roark & Co., L. W., Brookneal, Va. (General support).
 Robbins Manufacturing Co., Chicago, Ill.
 Roberson & Son, Inc., A., Binghamton, N. Y.
 Roberts Corporation, U. N., Davenport, Iowa.
 Roberts Hardware Co., Inc., Utica, N. Y.
 Roberts, Sanford & Taylor Co., Sherman, Tex.
 Robinson Lumber Co., Fred J., Detroit, Mich.
 Roebling's Sons Co., John A., Trenton, N. J.
 Rogers & Baldwin Hardware Co., Springfield, Mo.
 Rolscreen Co., Pella, Iowa.
 Rome Hardware Co., Inc., Rome, Ga.
 Ross Bros. Co., Worcester, Mass.
 Rounds & Porter Co., Wichita, Kans.
 Rudiger-Lang Co., Berkeley, Calif.
 Rudinger, Inc., C. E., South Kearny, N. J.
 Rust Sash & Door Co., Kansas City, Mo.
 Saginaw Hardware Co., Saginaw, Mich.
 St. Louis, City of, Board of Education, St. Louis, Mo.
 Salt Lake Hardware Co., The, Salt Lake City, Utah.
 San Jose Hardware Co., San Jose, Calif.

Sanders Bros. Manufacturing Co., Ottawa, Ill.
 Schaberg-Dietrich Hardware Co., Lansing, Mich.
 Schaefer Co., The, Decatur, Ind.
 Schelly & Bro., Inc., C. Y., Allentown, Pa.
 Schindel, Rohrer & Co., Inc., Hagerstown, Md.
 Schlafger Supply Co., Appleton, Wis.
 Schlatter Hardware Co., Inc., Fort Wayne, Ind.
 Scott-Burr Stores Corp., The, Chicago, Ill.
 Sears, Roebuck & Co., Chicago, Ill.
 Seattle Hardware Co., Seattle, Wash.
 Sechtmann Hardware Co., Inc., Hartford, Conn.
 Segel & Kohlhae Co., La Crosse, Wis.
 Seller Bros. & Co., San Francisco, Calif.
 Seneca Wire & Manufacturing Co., Fostoria, Ohio.
 Service Screen Co., Dallas, Tex.
 Shapleigh Hardware Co., St. Louis, Mo.
 Sharp-Horsey Hardware Co., Atlanta, Ga.
 Shillito Co., The John, Cincinnati, Ohio.
 Silvey Lumber Co., J. A., Inavale, Nebr.
 Simons, Inc., Minneapolis, Minn.
 Simons Hardware Co., S., Boston, Mass.
 Skinner Wire Works, Inc., Brooklyn, N. Y.
 Sloan Lumber Co., Fort Worth, Tex.
 Sloss & Brittain, San Francisco, Calif.
 Small Co., Inc., P. A. & S., York, Pa.
 Smith Bros. Hardware Co., The, Columbus, Ohio.
 Smith Co., Allen A., Toledo, Ohio.
 Smith & Co., Chas. J., Jersey City, N. J.
 Smith Co., Timothy, Boston, Mass.
 Smith Hardware Co., The W. H., Parkersburg, W. Va.
 Smith-Winchester Co., Jackson, Mich.
 Smith Wire & Iron Works, F. P., Chicago Ill.
 Snedaker & Co., Inc., Frank C., Philadelphia, Pa.
 Snow Lumber Co., High Point, N. C.
 Solzman Fly Screen Co., The M., Baltimore, Md.
 Soo Hardware Co., The, Sault Ste. Marie, Mich.
 Sothman Co., The, Grand Island, Nebr.
 Southern Hardware Co., Charleston, W. Va.
 Southern Hardware Co., Ltd., The, Monroe, La.
 Southwest Hardware Co., Los Angeles, Calif.
 Southwestern Sash & Door Co., Joplin, Mo.
 Sparq Wire Co., Inc., Rome, N. Y.
 Specification Record, Chicago, Ill.
 Speer Hardware Co., Fort Smith, Ark.
 Spetnagel Hardware Co., The, Chillicothe, Ohio.
 Spicola Hardware Co., Tampa, Fla.
 Spiegel, Inc., Chicago, Ill.
 Spokane Sash & Door Co., Spokane, Wash.
 Spradley-Sparks, Inc., Birmingham, Ala.
 Standard Supply & Hardware Co., Inc., New Orleans, La.
 Standard Wire Cloth & Screen Co., York, Pa.
 Stangel Hardware Co., J. J., Manitowoc, Wis.
 Starks & Co., Inc., Geo. L., Saranac Lake, N. Y.
 Stauffer-Eshleman & Co., Ltd., New Orleans, La.
 Steinfeld & Co., Albert, Tucson, Ariz.
 Steinman Hardware Co., Lancaster, Pa.
 Sterling Hardware Co., Inc., Hazard, Ky.
 Stichter Hardware Co., Inc., Reading, Pa.
 Stowe Hardware & Supply Co., Kansas City, Mo.
 Strang-Jones Hardware Co., Clinton, Okla.
 Stratton-Baldwin Co., Inc., New Orleans, La.
 Stratton & Terstegge Co., Inc., Louisville, Ky.
 Stratton-Warren Hardware Co., Memphis, Tenn.
 Strevel Paterson Hardware Co., Salt Lake City, Utah.
 Summers Hardware & Supply Co., Johnson City, Tenn.
 Superior Wire & Iron Products, Chicago, Ill.
 Superior-Sterling Co., Bluefield, W. Va.
 Supplee Biddle Co., Philadelphia, Pa.
 Swank Hardware Co., The, Johnstown, Pa.
 Sweetwater Sash & Door Co., Sweetwater, Tex.
 Tausche Hardware Co., V., La Crosse, Wis.
 Taylor Sash & Door Co., Pensacola, Fla.
 Teachout Sash, Door & Glass Co., The, Dearborn, Mich.
 Tenk Hardware Co., Quincy, Ill.
 Thalheimer Bros., Inc., Richmond, Va.
 Thomas Weatherstrip Screen Co., Boonsboro, Md.
 Thompson & Co., Inc., H. D., Malone, N. Y.
 Thompson Hardware Co., The, Lowell, Mass.
 Thompson Miller Hardware Corp., Charleston, S. C.

Thomson-Diggs Co., The, Sacramento, Calif.
 Throop Martin Co., The, Columbus, Ohio.
 Tips Co., The Walter, Austin, Tex.
 Toombs & Co., Springfield, Mo.
 Tower Hardware Co., Muskegon, Mich.
 Tracy-Wells Co., The, Columbus, Ohio.
 Truscon Steel Co., Youngstown, Ohio.
 Tryon Co., Edward K., Philadelphia, Pa.
 Tyler Co., The W. S., Cleveland, Ohio.
 Underwood Coal & Supply Co., Mobile, Ala.
 Union Hardware & Metal Co., Los Angeles, Calif.
 United Hardware & Supply Co., Titusville, Pa.
 United Lumber Co., St. Louis, Mo.
 Valley Screen Co., Burbank, Calif.
 Van Camp Hardware & Iron Co., Indianapolis, Ind.
 Van Hoogenhuize Hardware Co., Wm., San Antonio, Tex.
 Vaughn & Sons, Geo. C., Houston, Tex.
 Vermont Hardware Co., Inc., Burlington, Vt.
 Victoria Sash & Door Co., Inc., Shreveport, La.
 Virginia Carolina Hardware Co., Richmond, Va.
 Vonnegut Hardware Co., Indianapolis, Ind.
 Wabash Screen Door Co., The, Chicago, Ill.
 Wade Hardware Co., Greenwood, Miss.
 Wagner Hardware Co., The, Mansfield, Ohio.
 Wainwright Co., A. B., Philadelphia, Pa.
 Wallace Hardware Co., Inc., Morristown, Tenn.
 Warren Lumber Co., The, Fort Morgan, Colo.
 Watkins-Cottrell Co., Richmond, Va.
 Wayne Hardware Co., Inc., Fort Wayne, Ind.
 Weakley-Watson-Miller Hardware Co., Brownwood, Tex.
 Weber Hardware Co., Mantua, Ohio.
 Weber Hardware & Supply Co., Chagrin Falls, Ohio.
 Weed & Co., Buffalo, N. Y.
 Weeks Hardware Co., Scranton, Pa.
 Welch Sash & Door Co., Port Huron, Mich.
 West Texas Lumber Co., San Angelo, Tex.
 Western Door & Sash Co., Oakland, Calif.
 Western Metal Supply Co., San Diego, Calif.
 Western Reserve Lumber Co., The, Warren, Ohio.
 Westphal's Paint & Hardware Store, Green Bay, Wis.
 Whissel Lumber Co., Inc., L. N., Buffalo, N. Y.
 Whitney & Co., San Diego, Calif.
 Wholesale Hardware Co., Inc., New York, N. Y.
 Wiant & Barr-Hardware Co., Parkersburg, W. Va.
 Wickwire Brothers, Inc., Cortland, N. Y.
 Wickwire Spencer Steel Co., New York, N. Y.
 Wilcox & Haslup, Baltimore, Md.
 Williams Co., J. A., Pittsburgh, Pa.
 Williams Hardware Co., Fort Smith, Ark.
 Williams & Hunting Co., Cedar Rapids, Iowa.
 Williams & Son, George A., New York, N. Y.
 Williamson & Co., Inc., Ben, Ashland, Ky.
 Willoughby Hardware Co., Willoughby, Ohio.
 Wilson & Pugh Co., Cumberland, Md.
 Wimberly & Thomas Hardware Co., Birmingham, Ala.
 Winer's Hardware Stores, Inc., Quincy, Mass.
 Wolf & Dessauer Co., Fort Wayne, Ind.
 Woodruff Hardware Co., W. W., Knoxville, Tenn.
 Woodwell Co., Joseph, Pittsburgh, Pa.
 Wright Steel & Wire Co., G. F., Worcester, Mass.
 Wright & Wilhilmy Co., Omaha, Nebr.
 Wyeth Hardware & Manufacturing Co., St. Joseph, Mo.
 Yardley Industries, Columbus, Ohio.
 Zero Weather Stripping Co., Inc., New York, N. Y.
 Zork Hardware Co., El Paso, Tex.

UNITED STATES GOVERNMENT

Agriculture, U. S. Department of, Washington, D. C.
 Federal Public Housing Authority, Washington, D. C.
 Federal Works Agency, Public Buildings Administration, Washington, D. C. (General support).
 Justice, U. S. Department of, Bureau of Prisons, Washington, D. C.
 National Housing Agency, Office of Administrator, Washington, D. C. (General support).
 Tennessee Valley Authority, Wilson Dam, Ala.

COMMERCIAL STANDARDS

CS No.	Item	CS No.	Item
0-40.	Commercial standards and their value to business (third edition).	55-35.	Mattresses for institutions.
1-42.	Clinical thermometers (third edition).	56-41.	Oak flooring (second edition).
2-30.	Mopsticks.	57-40.	Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings (second edition).
3-40.	Stoddard solvent (third edition).	58-36.	Woven elastic fabrics for use in overalls (overall elastic webbing).
4-29.	Staple porcelain (all-clay) plumbing fixtures.	59-44.	Textiles—testing and reporting (fourth edition).
5-46.	Pipe nipples; brass, copper, steel and wrought-iron (second edition).	60-36.	Hardwood dimension lumber.
6-31.	Wrought-iron pipe nipples (second edition). Superseded by CS5-46.	61-37.	Wood-slat venetian blinds.
7-29.	Standard weight malleable iron or steel screwed unions.	62-38.	Colors for kitchen accessories.
8-41.	Gage blanks (third edition).	63-38.	Colors for bathroom accessories.
9-33.	Builders' template hardware (second edition).	64-37.	Walnut veneers.
10-29.	Brass pipe nipples. Superseded by CS5-46.	65-43.	Methods of analysis and of reporting fiber composition of textile products (second edition).
11-41.	Moisture regains of cotton yarns (second edition).	66-38.	Marking of articles made wholly or in part of platinum.
12-40.	Fuel oils (fifth edition).	67-38.	Marking articles made of karat gold.
13-44.	Dress patterns (fourth edition).	68-38.	Liquid hypochlorite disinfectant, deodorant, and germicide.
14-43.	Boys' button-on waists, shirts, junior and sport shirts (made from woven fabrics) (third edition).	69-38.	Pine oil disinfectant.
15-46.	Men's pajamas (made from woven fabrics) (third edition).	70-41.	Phenolic disinfectant (emulsifying type) (second edition) (published with CS71-41).
16-29.	Wall paper.	71-41.	Phenolic disinfectant (soluble type) (second edition) (published with CS70-41).
17-42.	Diamond core drill fittings (third edition).	72-38.	Household insecticide (liquid spray type).
18-29.	Hickory golf shafts.	73-45.	Old growth Douglas fir standard stock doors (third edition).
19-32.	Foundry patterns of wood (second edition).	74-39.	Solid hardwood wall paneling.
20-42.	Staple vitreous china plumbing fixtures (third edition).	75-42.	Automatic mechanical draft oil burners designed for domestic installations (second edition).
21-39.	Interchangeable ground-glass joints, stop-cocks, and stoppers (fourth edition).	76-39.	Hardwood interior trim and molding.
22-40.	Builders' hardware (nontemplate) (second edition).	77-40.	Sanitary cast-iron enameled ware.
23-30.	Feldspar.	78-40.	Ground-and-polished lenses for sun glasses (second edition) (published with CS79-40).
24-43.	Screw threads and tap-drill sizes.	79-40.	Blown, drawn, and dropped lenses for sun glasses (second edition) (published with CS78-40).
25-30.	Special screw threads. Superseded by CS24-43.	80-41.	Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).
26-30.	Aromatic red cedar closet lining.	81-41.	Adverse-weather lamps for vehicles (after market).
27-36.	Mirrors (second edition).	82-41.	Inner-controlled spotlamps for vehicles (after market).
28-46.	Cotton fabric tents, tarpaulins and covers (second edition).	83-41.	Clearance, marker, and identification lamps for vehicles (after market).
29-31.	Staple seats for water-closet bowls.	84-41.	Electric tail lamps for vehicles (after market).
30-31.	Colors for sanitary ware.	85-41.	Electric license-plate lamps for vehicles (after market).
31-38.	Wood shingles (fourth edition).	86-41.	Electric stop lamps for vehicles (after market).
32-31.	Cotton cloth for rubber and pyroxylin coating.	87-41.	Red electric warning lanterns.
33-43.	Knit underwear (exclusive of rayon) (second edition).	88-41.	Liquid-burning flares.
34-31.	Bag, case, and strap leather.	89-40.	Hardwood stair treads and risers.
35-42.	Plywood (hardwood and eastern red cedar) (second edition).	90- .	(Reserved for power shovels and cranes.)
36-33.	Fourdrinier wire cloth (second edition).	91-41.	Factory-fitted Douglas fir entrance doors.
37-31.	Steel bone plates and screws.	92-41.	Cedar, cypress, and redwood tank stock lumber.
38-32.	Hospital rubber sheeting.	93-41.	Portable electric drills (exclusive of high frequency).
39-37.	Wool and part wool blankets (second edition). (Withdrawn as commercial standard, July 14, 1941.)	94-41.	Calking lead.
40-32.	Surgeons' rubber gloves.	95-41.	Lead pipe.
41-32.	Surgeons' latex gloves.	96-41.	Lead traps and bends.
42-43.	Structural fiber insulating board (third edition).	97-42.	Electric supplementary driving and passing lamps for vehicles (after market).
43-32.	Grading of sulphonated oils.	98-42.	Artists' oil paints.
44-32.	Apple wraps.	99-42.	Gas floor furnaces—gravity circulating type.
45-45.	Douglas fir plywood (sixth edition).	100-44.	Porcelain-enamelled steel utensils (second edition).
46-40.	Hosiery lengths and sizes (third edition).	101-43.	Flue-connected oil-burning space heaters equipped with vaporizing pot-type burners.
47-34.	Marking of gold-filled and rolled-gold-plate articles other than watchcases.	102- .	(Reserved for Diesel and fuel-oil engines).
48-40.	Domestic burners for Pennsylvania anthracite (underfeed type) (second edition).	103-42.	Cotton and rayon velour (jacquard and plain).
49-34.	Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes.	104-46.	Warm-air furnaces equipped with vaporizing pot-type oil burners (second edition).
50-34.	Binders board for bookbinding and other purposes.		
51-35.	Marking articles made of silver in combination with gold.		
52-35.	Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).		
53-35.	Colors and finishes for cast stone.		
54-35.	Mattresses for hospitals.		

CS No.	Item	CS No.	Item
105-43.	Mineral wool; loose granulated, or felted form, in low-temperature installations.	122-45.	Western hemlock plywood.
106-44.	Boys' pajama sizes (woven fabrics) (second edition).	123-45.	Grading of diamond powder.
107-45.	Commercial electric-refrigeration condensing units (second edition).	(E)124-45. ¹	Master disks.
108-43.	Treading automobile and truck tires.	125-45.	Prefabricated homes.
109-44.	Solid-fuel-burning forced-air furnaces.	126-45.	Tank mounted air compressors.
110-43.	Tire repairs—vulcanized (passenger, truck, and bus tires).	127-45.	Self-contained mechanically refrigerated drinking water coolers.
111-43.	Earthenware (vitreous-glazed) plumbing fixtures.	128-45.	Men's sport shirt sizes—woven fabrics (other than those marked with regular neckband sizes).
112-43.	Homogeneous fiber wallboard.	129-46.	Materials for safety wearing apparel.
113-44.	Oil-burning floor furnaces equipped with vaporizing pot-type burners.	130-46.	Color materials for art education in schools.
114-43.	Hospital sheeting for mattress protection.	131-46.	Industrial mineral wool products, all types—testing and reporting.
115-44.	Porcelain-enamede tanks for domestic use.	132-46.	Hardware cloth.
116-44.	Bituminized-fibre drain and sewer pipe.	133-46.	Woven wire netting.
117-44.	Mineral wool; blankets, blocks, insulating cement, and pipe insulation for heated industrial equipment.	134-46.	Cast Aluminum Cooking Utensils (Metal Composition).
118-44.	Marking of jewelry and novelties of silver.	135-46.	Men's shirt sizes (Exclusive of work shirts).
(E)119-45. ¹	Dial indicators (for linear measurements).	136-46.	Blankets for hospitals (wool and wool and cotton).
120-46.	Standard stock ponderosa pine doors. (Second Edition.)	137-47.	Size measurements for men's and boys' shorts—woven fabrics.
121-45.	Women's slip sizes (woven fabrics).	138-47.	Insect Wire Screening.
		139-47.	Work Gloves.
		140-47.	Convector (testing and rating).

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everybody practice may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington 25, D. C.

¹ Where "(E)" precedes the CS number, it indicates an emergency commercial standard, drafted under war conditions with a view toward early revision.